

REMARKS AND ARGUMENTS

Reconsideration of the application is respectfully requested in view of this Amendment and the following remarks.

This Amendment amends claims 33, 41, and 64, and cancels claim 72. Claims 33-41 and 64-71 are now pending in this application. Claims 1-32, 42-61, and 63 are presently withdrawn.

The Specification has been amended to define the acronym “RMS” as “root mean square.”

Priority

A certified copy of the priority foreign application will be filed in due course when obtained by Applicant.

Claim Rejections – 35 U.S.C. §112

Claims 38, 39, 69, and 70

The Examiner objected to the limitation “an RMS acceleration” in claims 38, 39, 69, and 70. “RMS” is an acronym for “Root Mean Square.” The Specification has been amended to define this acronym.

Also known as the quadratic mean, the root mean square is well known in medicine, science, and engineering as a statistical measure of the magnitude of a varying quantity. The root mean square is typically used to represent an average value of a parameter that oscillates about an origin between positive and negative values. The root mean square is the square root of the mean, or average, of the squares of the values.

The “RMS acceleration” value found in claims 38, 39, 69 and 70 is that of the vibrations of the device. All vibrations have a characteristic acceleration that changes from a maximum at the peak values and to zero at the origin. Given that RMS is now defined in the Specification and that the vibrations of the device are the only reference for the stated acceleration, it is believed that these claims are sufficiently clear and definite to satisfy the requirement of 35 U.S.C. §112.

Claims 41 and 72

The Examiner objected to claim 41 as being unclear as to whether or not there is an application of pressure applying means, and because the 25% and 50% values were unspecified.

Claim 41 has been amended to delete the phrase “without application of said pressure applying means” and to clarify that the 25% and 50% refer to the area of the body subject to pressure in excess of 10 mm Hg without application of said pressure applying means. It is believed that claim 41 as amended is sufficiently definite to satisfy the requirement of 35 U.S.C. §112.

Claim 72, also objected to by the Examiner, has been canceled.

Claim Rejections – 35 U.S.C. §103

Claims 33-37, 40, 64-68, and 71 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 3,853,121 to Mizrachy et al. in view of Pickup et al. and Lievens. The Examiner states that it would be obvious to one of ordinary skill in the art to operate the device in the Mizrachy reference so that it would provide a cycloid vibration therapy having components in three orthogonal directions at a frequency of between 15 and 75 Hz and an amplitude of between 0.1 and 0.5 mm for 30 minutes, three times a day, as suggested and taught by Pickup et al and Lievens.

Independent claims 33 and 64 have been amended to delete the prophylactic treatment of deep vein thrombosis from the scope of the claims. Applicant respectfully submits that claims 33 and 64 as amended are patentably distinct from the cited references in combination. Mizrachy is concerned with reducing the risk of thrombosis by imparting massage and vibration. There is no suggestion in Mizrachy, Pickup et al., or in Lievens that lymphedema is cured or reduced by application of vibrations. Nor, indeed, is there any suggestion that lymphedema is beneficially affected by improved blood circulation. Rather, the present invention has its effect directly on the lymph system improving lymph drainage. This is not a by-product of improved blood circulation. Consequently, there is no teaching in the prior art cited by the Examiner that lymphedema might be treated with vibration therapy.

No assertion is made by the Examiner that the prior art shows that ulcers might be treated by vibration. However, the Examiner suggests that Pickup et al. discloses using cycloid vibration for “the purpose of providing pain relief, improving ulcer healing, and enhancing blood

circulation". Pickup et al. does, indeed, suggest the first and the last of these. However, the Examiner is challenged to show some suggestion, motivation or teaching that the process of healing ulcers is improved by applying mechanical vibration. The Applicant's position is that there is none. Indeed, applying vibration to an ulcerated leg is contrary to accepted practice, which is to keep an ulcerated leg immobile. It is indeed the case, it appears, that improved blood circulation, with resultant improvement in antibiotic drug delivery to the affected sites, is responsible for the improved ulcer healing discovered. However, there is no suggestion of this in the prior art.

Incidentally, as the Examiner will appreciate, pain relief can, in the course of time, be associated with healing, but in the case of the pain relief discussed in Pickup et al., this comes from the numbing of the nerves caused by vibration and is a relatively instantaneous, and albeit somewhat short-lived, effect. This is quite separate, and on a quite different timescale, to the healing effects that are experienced over a period of days and weeks. Consequently, it is suggested that claims 33 and 64 should now be considered novel and inventive over the combination of Mizrachy, Pickup et al., and Lievens.

Dependent claims 34-37 and 40 depend directly from, and contain all the limitations of claim 33 as amended. Therefore, dependent claims 34-37 and 40 are also patentably distinct from the cited references for the reasons stated above with respect to claim 33.

Dependent claims 65-68 and 71 depend directly from, and contain all the limitations of claim 64 as amended. Therefore, dependent claims 65-68 and 71 are also patentably distinct from the cited references for the reasons stated above with respect to claim 64.

CONCLUSION

Applicant has made an earnest attempt to place this application in condition for allowance. For the reasons stated above, and for other reasons clearly apparent, Applicant respectfully requests full allowance of the remaining claims as herein amended. Reconsideration of this application in view of this Amendment and Response is therefore requested.

The Commissioner is hereby authorized to charge any fees or credit any overpayments to
Deposit Account No. 11-0307.

Respectfully submitted,

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